SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 5)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 8 to 16 km (meters)	Predicted Distances	
		To the 0.16 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
* 258.4	101.4	13.5	24.4
0	96.3	13.2	23.8
45	101.6	13.6	24.4
90	101.7	13.6	24.4
+ 135	100.3	13.5	24.3
++ 180	101.7	13.6	24.4
+ 225	101.7	13.6	24.4
270	99.7	13.4	24.2
315	98.7	13.4	24.1

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT. + Portion of radial over water. Average calculated per §73.313(d)(2)(ii).
++ Radial over water. Excluded from HAAT calculation per §73.313(d)(2)(i).

20. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311. Exhibit No. N/A

If No, explain briefly why not. This application is categorically excluded from environmental processing under the provisions of §1.1306 of the Commission's rules. See Exhibit #7 for radiofrequency radiation statement & study.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
Richard S. Graham, Jr. Bromo Communications, Inc.	Technical Consultant
Signature	Address *(Include ZIP Code)* 1331 Ocean Blvd. - Suite #201 P.O. Box M St. Simons Island, Georgia 31522
Date December 18, 1991	Telephone No. *(Include Area Code)* (912) 638-5608

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
December 1991

Technical Exhibit
TE-1

Bromo Communications, Inc.
P.O. Box M - 1331 Ocean Boulevard, Suite 201
St. Simons Island, Georgia 31522
(912) 638-5608

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
December 1991

TECHNICAL STATEMENT

This technical statement and attached exhibits were prepared on behalf of Mark and Renee' Carter ("The Carters"), who are seeking authority to construct a new FM station on Channel 292A at Miramar Beach, Florida. The Carters are proposing construction of a new tower to support the antenna system for the Miramar Beach facility. The Federal Aviation Administration has been apprised of the proposed construction, see Exhibit #1.

The proceeding which allotted Channel 292A to Miramar Beach, Florida, commenced prior to October 2, 1989. Therefore, the Report and Order, MM Docket #89-126, noted

DO NOT REMOVE CARBONS

Form Approved OMB No. 2120-0001

US Department of Transportation
Federal Aviation Administration

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Aeronautical Study Number

1. Nature of Proposal

A. Type	B. Class	C. Work Schedule Dates
☒ New Construction	☒ Permanent	Beginning FCC Approval
☐ Alteration	☐ Temporary (Duration _____ months)	End 12 months

2. Complete Description of Structure

A. Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure.

B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports.

C. Include information showing site orientation, dimensions, and construction materials of the proposed structure

New FM Station
CH 292A - 106.3 Mhz
3.0 kw - 3 bay antenna
Ant. COR 333.7 feet AMSL

(if more space is required, continue on a separate sheet.)

3A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. *(Number, Street, City, State and Zip Code)*

(904) 231-4666
area code Telephone Number

TO
Mark and Renee' Carter
Route 2, Box 46
Santa Rosa Beach, Florida 32459

B. Name, address and telephone number of proponent's representative if different than 3 above.

Bromo Communications, Inc.
P.O. Box M
St. Simons Island, Georgia 31522
(912) 638-5608

4. Location of Structure

A. Coordinates *(To nearest second)*	B. Nearest City, Town and State	C. Name of nearest airport, heliport, flightpark, or seaplane base
	Miramar Beach, FL	Destin-Ft Walton Beach
° ' " 30 23 07 Latitude	(1) Distance to 48 3.6 Miles	(1) Distance from structure to nearest point of nearest runway 10 miles
° ' " 86 18 03 Longitude	(2) Direction to 48 258° true	(2) Direction from structure to airport 273° true

5. Height and Elevation *(Complete to the nearest foot)*

A. Elevation of site above mean sea level	8
B. Height of Structure including all appurtenances and lighting *(if any)* above ground, or water if so situated	343
C. Overall height above mean sea level *(A + B)*	351

D. Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). *(if more space is required, continue on a separate sheet of paper and attach to this notice.)*

3.6 miles east-northeast of Miramar Beach, north of highway 98, Walton County, Florida.

Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than $500 for the first offense and not more than $2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).

I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.

Date	Typed Name/Title of Person Filing Notice	Signature
12/18/91	Richard S. Graham, Consultant	

FOR FAA USE ONLY *FAA will either return this form or issue a separate acknowledgement.*

The Proposal:

- ☐ Does not require a notice to FAA.
- ☐ Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.
- ☐ Is identified as an obsrtuction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.
- ☐ Should be obstruction ☐ MARKED, ☐ lighted per FAA Advisory Circular 70/7460-1, Chapter(s) _____
- ☐ Obstruction marking and lighting are not :

Supplemental Notice of Construction FAA Form 7460-2 is required any time the project is abandoned, or

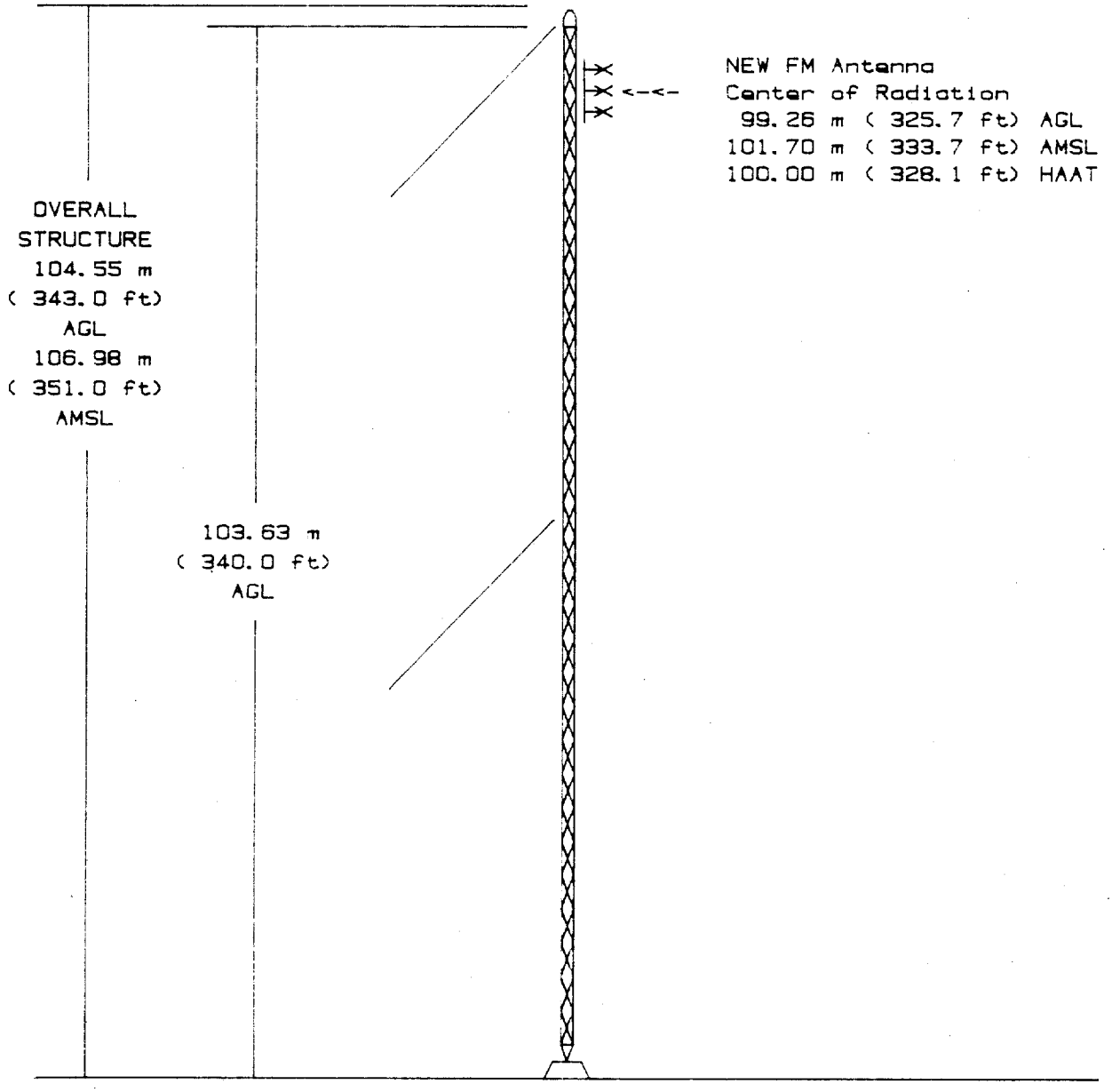
- ☐ At least 48 hours before the start of construction.
- ☐ Within five days afte

This determination expi
(a) extended, revised or
(b) the construction is su
an application for a c
such case the deter
struction, or on the d

NOTE: Request for extensior
the issuing office at le

If the structure is subject tc

EXHIBIT #1
NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH FLORIDA



Note : Site elevation determined by interpolation of map contours.

VERTICAL PLAN SKETCH

SITE ELEVATION - 2 m (8 ft) AMSL

TOP OF STRUCTURE - 105 m (343 ft) AGL
107 m (351 ft) AMSL

FM Antenna COR - 99 m (326 ft) AGL
102 m (334 ft) AMSL
100 m (328 ft) HAAT

NOTE: NOT DRAWN TO SCALE

EXHIBIT #2

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
DECEMBER 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
December 1991

EXHIBIT #3

Section 73.213(c) Justification

The proceeding which ultimately allotted Channel 292A to Miramar Beach, Florida, commenced prior to October 2, 1989. Therefore, any applicants filling for the Miramar channel may avail themselves of §73.213(c) spacing requirements. The Report and Order in MM Docket 89-126 specifically noted that applicants could employ §73.213(c) towards WKNU, Channel 292A, Brewton, Alabama. Exhibit #3A demonstrates the this proposal meets §73.213(c) spacing towards WKNU.

Exhibit #3B is a spacing analysis under §73.207 requirements and shows that aside from WKNU, this proposal meets current spacing requirements to all other facilities. Therefore, this proposal is in compliance with §73.213(c), relating to WKNU, and §73.207 spacing to all other licensed, applied for or proposed facilities.

CLEARANCE STUDY FOR MIRAMAR BEACH, FLORIDA
USING PROPOSED SITE AS REFERENCE

REFERENCE
30 23 07 N
86 18 03 W

CLASS A
Previous rule spacings
CHANNEL 292 -106.3 MHz

DISPLAY DATES
DATA 11-27-91
SEARCH 12-17-91

CALL / TYPE	CH# / LAT / LNG	CITY	STATE / PWR	BEAR' / HT	D-KM / D-Mi	R-KM / R-Mi	MARGIN (KM)	
ALOPEN	292A	Miramar	FL	250.0	3.33	105.0	-101.67	*
AD	30 22 30	86 20 00	0.000 kW	0M	2.1	65.3		
	Carol Renee Carter				RM6669			
>Coordinates as shown on sheet								
>PRM-Site Restricted 2.4 km East								
WILN	290C2	Panama City	FL	114.6	54.92	55.0	-0.08	*
LI CN	30 10 44	85 46 55	50.000 kW	117M	34.1	34.2		
	Baymedia, Inc.				BLH890428KA			
WKNU	292A	Brewton	AL	319.4	106.15	105.0	1.15	<
LI CN	31 06 45	87 01 19	3.000 kW	91M	66.0	65.3		
	Ellington Radi				BLH6349			
ALOPEN	291A	Gulf Breeze	FL	267.9	82.32	64.0	18.32	
AL N	30 21 30	87 09 24	0.000 kW	0M	51.2	39.8		
	83-493	WO= 850613					850712	
>EFFECTIVE 870827-RESERVED FOR ULTIMATE PERMITTEE								
WKMX.C	294C	Enterprise	AL	16.0	118.36	94.0	24.36	
CPM CN	31 24 41	85 57 32	100.000 kW	326M	73.6	58.4		
	WKMX Radio, Inc.				BMPH871103IL			
AD293	293C1	Apalachicola	FL	118.0	154.09	129.0	25.09	
AD	29 43 57	84 53 24	0.000 kW	0M	95.8	80.2		
	Richard L. Plessinger, Sr.				RM6877			
>PRM-Restricted 9.7 km East								
AD293	293C1	Carrabelle	FL	113.1	158.41	129.0	29.41	
AD	29 49 30	84 47 20	0.000 kW	0M	98.4	80.2		
	Allen Audio							
>Site Restricted 12.5 km West-Counterproposal								

SECTION 73.213 SPACING

NOTE : SEE EXHIBIT #3 FOR SECTION 73.213 SPACING JUSTIFICATION.

NOTE : THE SHORTAGE TOWARDS WILN. PANAMA CITY. FLORIDA IS LESS THAN -0.5 KILOMETERS AND ROUNDS TO ZERO.

EXHIBIT #3A
NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH. FLORIDA
DECEMBER 1991

BROMO
BROADCAST TECHNICAL CONSULTANTS

CLEARANCE STUDY FOR MIRAMAR BEACH, FLORIDA
USING PROPOSED SITE AS REFERENCE

REFERENCE
30 23 07 N
86 18 03 W

CLASS A
Current rules spacings
CHANNEL 292 -106.3 MHz

DISPLAY DATES
DATA 11-27-91
SEARCH 12-17-91

CALL / TYPE	CH# / LAT / LNG	CITY	STATE / PWR	BEAR' / HT	D-KM / D-Mi	R-KM / R-Mi	MARGIN (KM)
ALOPEN	292A	Miramar	FL	250.0	3.33	115.0	-111.67 *
AD	30 22 30	86 20 00	0.000 kW	0M	2.1	71.5	
	Carol Renee Carter				RM6669		
>Coordinates as shown on sheet							
>PRM-Site Restricted 2.4 km East							
WKNU	292A	Brewton	AL	319.4	106.15	115.0	-8.85 *
LI CN	31 06 45	87 01 19	3.000 kW	91M	66.0	71.5	
	Ellington Radi				BLH6349		
WILN	290C2	Panama City	FL	114.6	54.92	55.0	-0.08 *
LI CN	30 10 44	85 46 55	50.000 kW	117M	34.1	34.2	
	Baymedia, Inc.				BLH890428KA		
ALOPEN	291A	Gulf Breeze	FL	267.9	82.32	72.0	10.32
AL N	30 21 30	87 09 24	0.000 kW	0M	51.2	44.8	
	83-493	WO= 850613					850712
>EFFECTIVE 870827-RESERVED FOR ULTIMATE PERMITTEE							
AD293	293C1	Apalachicola	FL	118.0	154.09	133.0	21.09
AD	29 43 57	84 53 24	0.000 kW	0M	95.8	82.7	
	Richard L. Plessinger, Sr.				RM6877		
>PRM-Restricted 9.7 km East							
WKMX.C	294C	Enterprise	AL	16.0	118.36	95.0	23.36
CPM CN	31 24 41	85 57 32	100.000 kW	326M	73.6	59.0	
	WKMX Radio, Inc.				BMPH871103IL		
AD293	293C1	Carrabelle	FL	113.1	158.41	133.0	25.41
AD	29 49 30	84 47 20	0.000 kW	0M	98.4	82.7	
	Allen Audio						
>Site Restricted 12.5 km West-Counterproposal							

SECTION 73.207 SPACING

NOTE : SEE EXHIBIT #3 FOR DETAILS RELATING TO THE SHORTSPACE TOWARDS WKNU. BREWTON. ALABAMA.

NOTE : THE SHORTAGE TOWARDS WILN, PANAMA CITY. FLORIDA IS LESS THAN -0.5 KILOMETERS AND ROUNDS TO ZERO.

EXHIBIT #3B

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH. FLORIDA
DECEMBER 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
December 1991

EXHIBIT #4

Facilities Within Study

There are no proposed or authorized FM or Television transmitters, or any non-broadcast radio stations within 60 meters of this proposal. There are no known established commercial or government receiving stations or cable head-end facilities within the blanketing contour of this proposal. However, within the blanketing contour there are some sparsely populated areas. See Exhibit #4A for a detailed FM blanketing study and statement.

There are several authorized or proposed FM or TV transmitters within 10 kilometers of this proposal. A complete list of these facilities/proposals is attached as Exhibit #4B. Although it is the experience of Bromo Communications, Inc. that none of the stations listed on Exhibit #4B will be subject to any receiver-induced intermodulation interference as a result of the granting and subsequent operation of this proposed station, Mark and Renee' Carter ("The Carters") will use sound engineering practices to remedy the situation to the Commission's satisfaction. The Carters will also follow the guidelines of §73.318 of the Commission's rules and regulations. There are no AM stations within 3.2 kilometers (2.0 miles) of this proposal.

FM BLANKETING CONTOUR CALCULATION

The blanketing contour of New FM is determined using the following formula as defined in 73.318 of the Commission's Rules:

D=0.394 * SQR(P)
where D= distance to blanketing contour in km
P=ERP in kW of the station

The ERP of New FM is 3 kW yielding a blanketing contour .68 km from the tower.

While it is the experience of this firm that very little, if any, blanketing interference will be experienced by the grant of this proposal, New FM will follow the guidelines of 73.318 and good engineering practice to satisfy blanketing complaints.

FM BLANKETING STUDY

EXHIBIT #4A
NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
DECEMBER 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia Washington, D.C.

AM STATIONS WITHIN 4 KM

FREQ	KM	MI	BEARING	LAT / LONG	STATUS	CL	PWR	FIELD	CALL	CO	ST	CITY

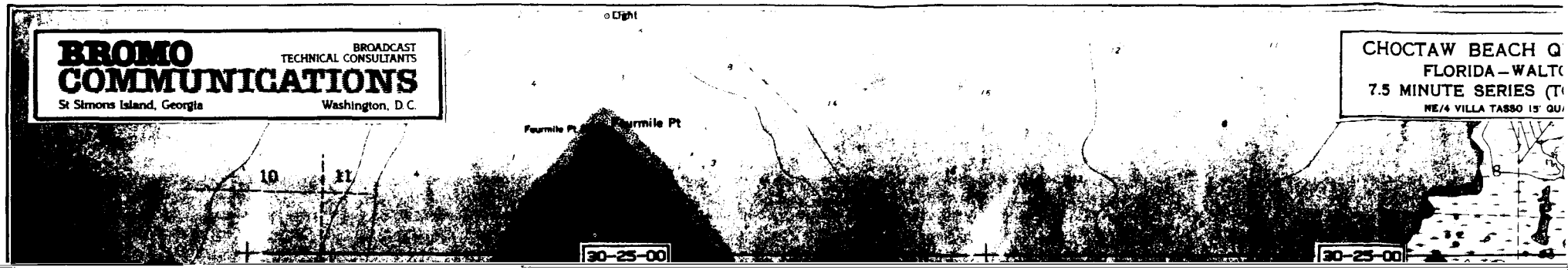
NONE

FM STATIONS WITHIN 10 KM

CHANNEL	KM	MI	BEARING	LAT / LONG	STATUS	PWR	CALL	ST	CITY
271C3	4.84	(3.01)	256.7	30-22-31/ 86-20-60	AD	0.00	AD271	FL	Santa Rosa Beach
272A	5.86	(3.64)	259.1	30-22-31/ 86-21-39	DE	0.00	DE272	FL	Santa Rosa Beach
272A	5.86	(3.64)	259.1	30-22-31/ 86-21-39	LI	3.00	WWAV	FL	Santa Rosa Beach
292A	3.32	(2.06)	249.9	30-22-30/ 86-20- 0	AD	0.00	AD292	FL	Miramar

TV STATIONS WITHIN 10 KM

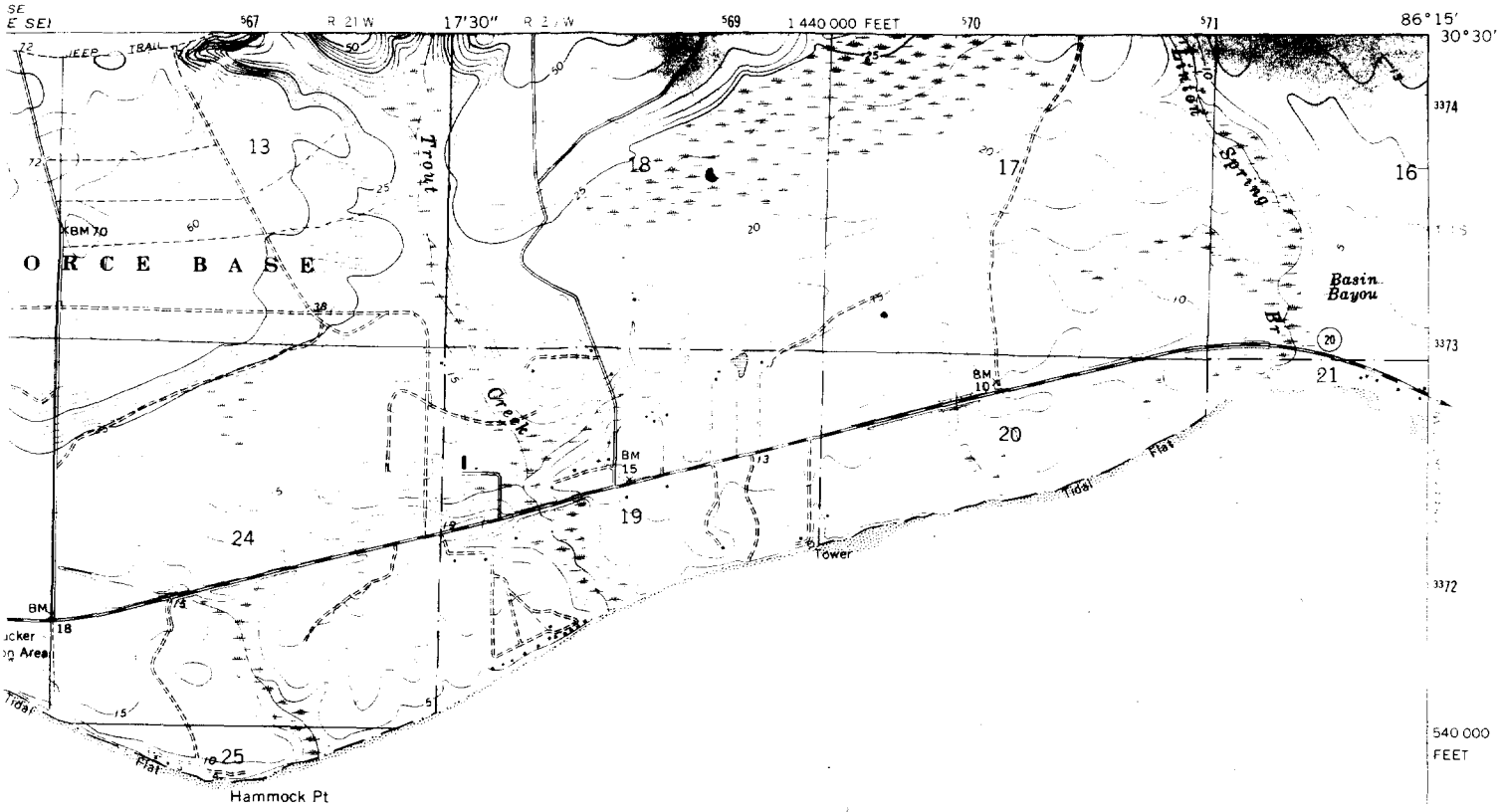
CHANNEL	KM	MI	BEARING	LAT / LONG	STATUS	PWR	CALL	ST	CITY
44/	1.15	/ 0.71)	212.8	30-22-28/ 86-19-29	CP	57.200	WJAB	FL	FORT WALTON BEACH


BROMO
COMMUNICATIONS
BROADCAST
TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.
Light
Fourmile Pt
Fourmile Pt
10
11
30-25-00
CHOCTAW BEACH Q
FLORIDA—WALT
7.5 MINUTE SERIES (T
NE/4 VILLA TASSO 15' QU
8
30-25-00

FLORIDA

CHOCTAW BEACH QUADRANGLE
FLORIDA—WALTON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 VILLA TASSO 15' QUADRANGLE

3745 II SW (PORTLAND)



INTRACOASTAL WATERWAY

C H E E B A Y

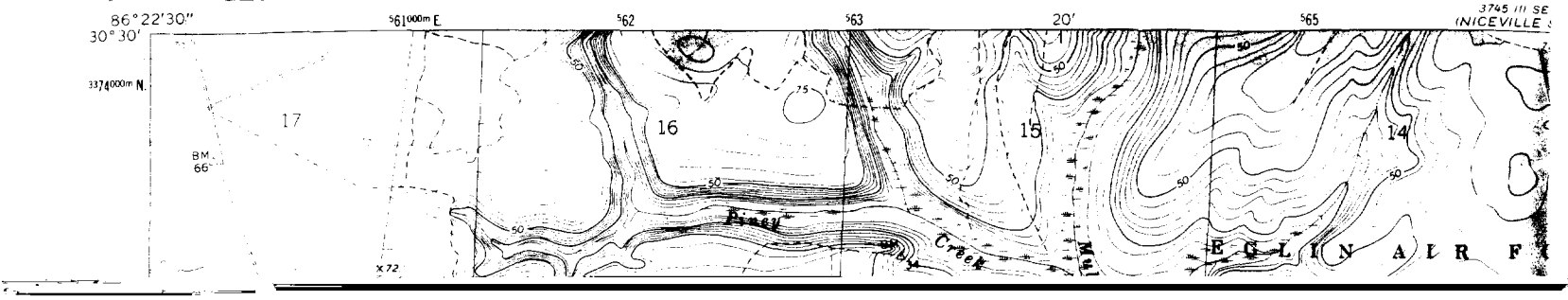
(FREEPORT) 3744 I NW

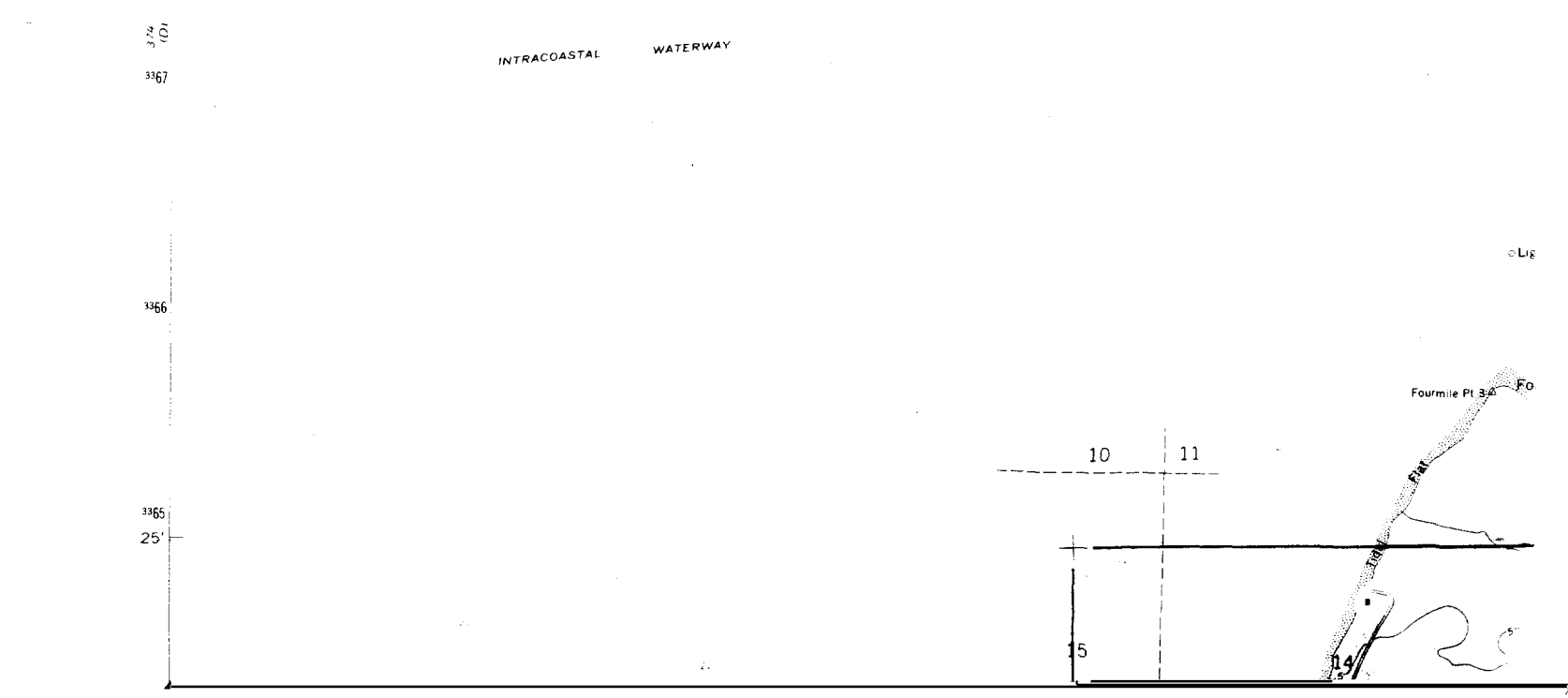
Live Oak Pt

3745 III SW
(NICEVILLE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF FL




INTRACOASTAL WATERWAY
3367
3366
3365
25'
10
11
15
14
Fourmile Pt 3.4
Fo
Flat
Lig

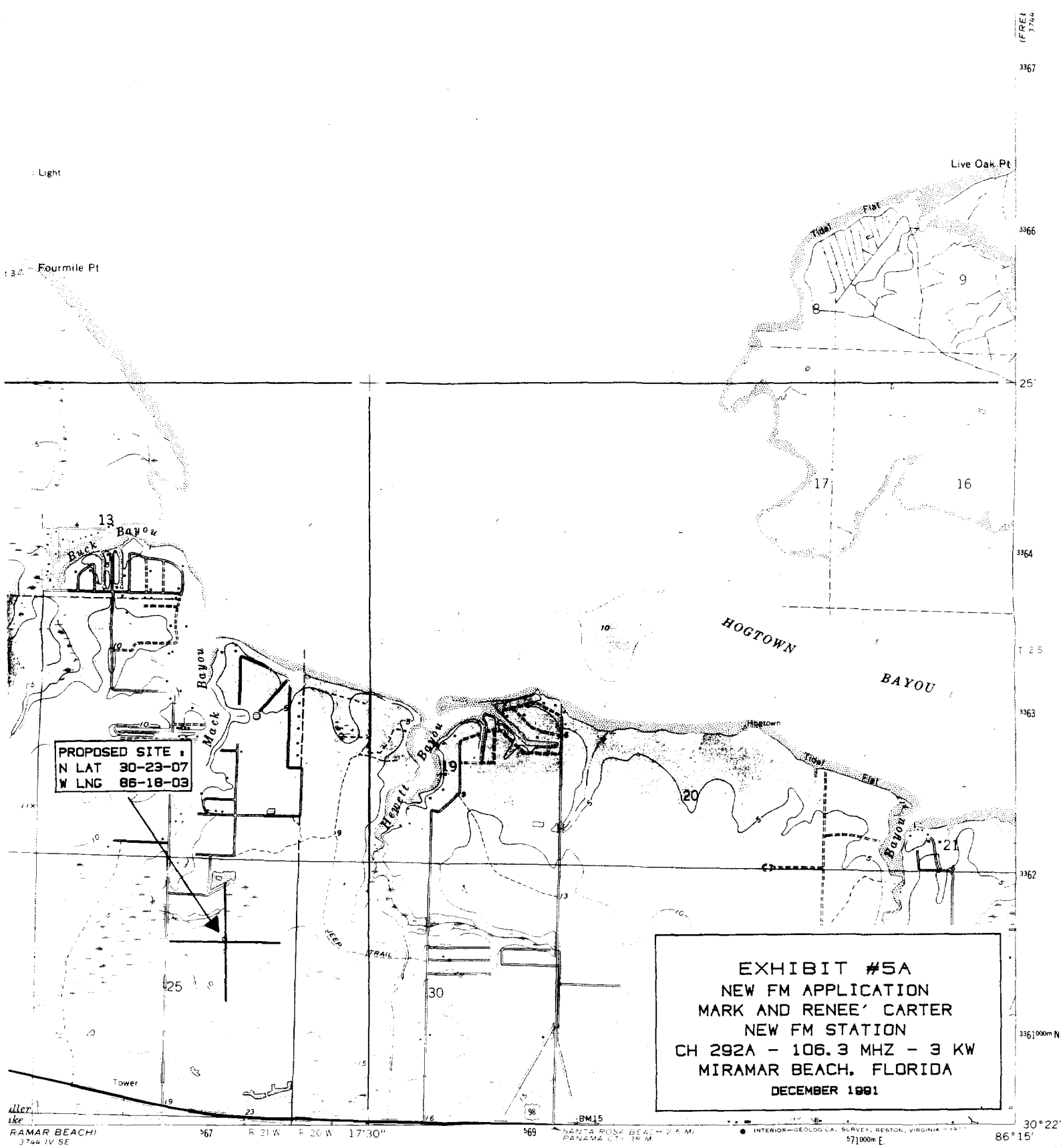


EXHIBIT #5A
NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
DECEMBER 1991

SCALE 1:24000

1 MILE
3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 5 FEET
DATUM IS VERTICAL DATUM OF 1929
... IN FEET -- DATUM IS MEAN LOW WATER
... APPROXIMATE LINE OF MEAN HIGH WATER
... IS APPROXIMATELY 0.6 FEET

NATIONAL MAP ACCURACY STANDARDS
ICAL SURVEY, RESTON, VIRGINIA 22092
MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

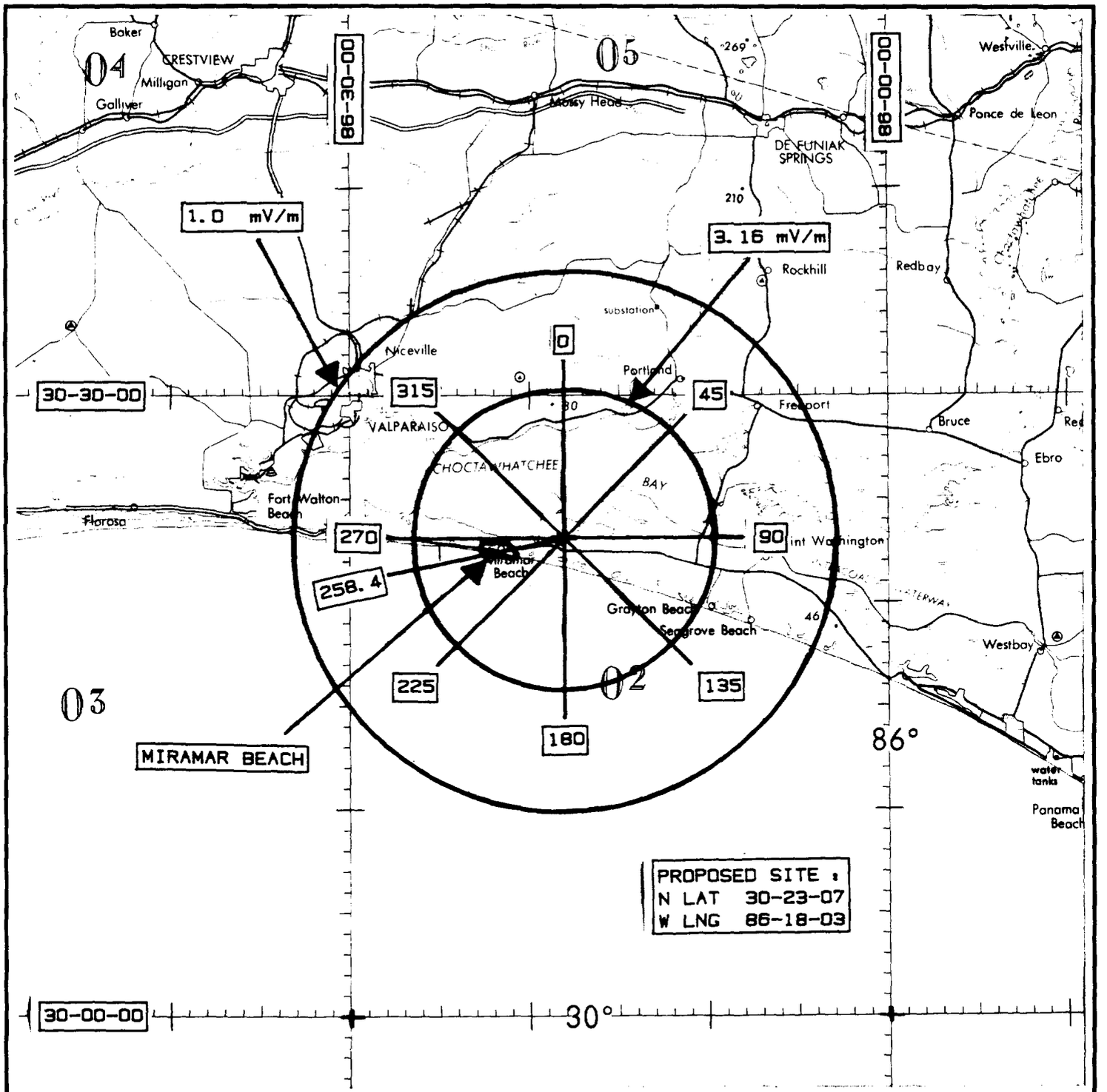
ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route U S Route State Route

FLORIDA
QUADRANGLE LOCATION

CHOCTAW BEACH, FLA.
NE/4 VILLA TASSO 15' QUADRANGLE
N3022.5—W8615/7.5

1970
PHOTOREVISED 1976
AMS 3744 IV NE—SERIES V847



PREDICTED CONTOURS

MAP IS A PORTION OF THE 1:500,000 SCALE NEW ORLEANS SECTIONAL AERONAUTICAL CHART.

SCALE 1:500,000

MI 10 0 10 MI

KM 10 0 10 20 KM

EXHIBIT #6

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA

DECEMBER 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

NEW FM APPLICATION
MARK AND RENEE' CARTER
NEW FM STATION
CH 292A - 106.3 MHZ - 3 KW
MIRAMAR BEACH, FLORIDA
December 1991

EXHIBIT #7

Radiofrequency Radiation Study and Statement

This radiofrequency radiation study is being conducted to determine whether this proposal is in compliance with OST Bulletin Number 65, dated October 1985, regarding human exposure to radiofrequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OST Bulletin.

The proposed New FM three bay antenna system will be mounted with its center of radiation 99.26 meters (325.7 feet) above the ground at the proposed tower location and operate with an effective radiated power of 3.0 kilowatts in both the horizontal and vertical plane. At two meters, the height of an average person, above the ground at the base of the proposed tower, this facility will contribute, worst case, .0212 mW or 2.1% of the allowable ANSI limit. Since this level is below the 100% limit defined in the aforementioned bulletin, this proposal is believed to be in compliance with OST Bulletin Number 65, as is required by the Federal Communications Commission.

Further, the applicant will post warning signs in the vicinity of the tower warning of potential radiofrequency radiation hazards at the site. The applicant also will reduce power of the proposed facility or discontinue operation should anyone be required to climb the tower for maintenance or inspection. This will insure that workers will not be exposed to radiofrequency radiation levels in excess of those noted in the aforementioned bulletin.

AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

State of Georgia)
St. Simons Island) ss:
County of Glynn)

RICHARD S. GRAHAM, JR. being duly sworn, deposes and says that he is an officer of Bromo Communications, Inc. Bromo has been engaged by Mark and Renee' Carter to prepare the attached Technical Exhibit.

His qualifications are a matter of record before the Federal Communications Commission. He is a graduate of Auburn University and has been active in broadcast engineering since 1972.

The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 18th day of December, 1991.

Richard S. Graham, Jr.
Affiant

Sworn to and subscribed before
me this the 18th day of
December, 1991.

Notary Public, State of Georgia
My Commission Expires: August 21, 1995

RUTH M. GOULD
NOTARY
GEORGIA
PUBLIC
GLYNN COUNTY